	Total Ameritech Weighted Average		Total Ameritech Weighted Investment
Depreciation	$203.69		
Cost of Money	$103.96		
Income Tax	$49.10		
Maintenance	$36.12		
Ad Valorem Tax	$13.77		
Total Annual Cost	$406.64		$1,502.02

Item:	DS-3 Repeater						
Acct:	357C with pwr & f.s.						
A. INVESTMENT							
			IL	IN	MI	OH	WI
1	1993 Investment		$1,353.29	$1,353.29	$1,353.29	$1,353.29	$1,353.29
2	1996 TPI Index		98.7	98.7	98.7	98.7	98.7
3	1993 TPI Index		102.2	102.2	102.2	102.2	102.2
4	TPI Factor	(L2 / L3)	0.9658	0.9658	0.9658	0.9658	0.9658
5	1996 Investment	(L1 * L4)	$1,307.01	$1,307.01	$1,307.01	$1,307.01	$1,307.01
6	Cmn & Pwr Empt		0.0690	0.0661	0.0919	0.0797	0.0811
7	Total Investment	(L5 * (1+L6))	$1,397.19	$1,393.40	$1,427.12	$1,411.18	$1,413.01
B. ANNUAL CHARGE FACTORS							
	Depreciation		0.1429	0.1429	0.1429	0.1429	0.1429
	Cost of Money		0.0671	0.0678	0.0688	0.0689	0.0669
	Income Tax		0.0354	0.0331	0.0300	0.0297	0.0359
	Maintenance		0.0385	0.0170	0.0219	0.0144	0.0275
	Ad Valorem Tax		0.0025	0.0066	0.0097	0.0192	0.0000
C. ANNUAL COSTS (A * B)							
	Depreciation		199.66	199.12	203.94	201.66	201.92
	Cost of Money		93.75	94.47	98.19	97.23	94.53
	Income Tax		49.46	46.12	42.81	41.91	50.73
	Maintenance		53.79	23.69	31.25	20.32	38.86
	Ad Valorem Tax		3.49	9.20	13.84	27.09	0.00
D. JURISDICTION WEIGHTING			0.22	0.12	0.27	0.27	0.12
	D 1.Weighted Investment D*A		307.38	167.21	385.32	381.02	169.56
E. WEIGHTED ANNUAL COSTS (C * D)							Ameritech Weighted Average
			IL	IN	MI	OH	WI
	Depreciation		43.93	23.89	55.06	54.45	24.23	$201.56
	Cost of Money		20.63	11.34	26.51	26.25	11.34	$96.07
	Income Tax		10.88	5.53	11.56	11.32	6.09	$45.38
	Maintenance		11.83	2.84	8.44	5.49	4.66	$33.26
	Ad Valorem Tax		0.77	1.10	3.74	7.31	0.00	$12.92
	Total Annual Cost		88.04	44.70	105.31	104.82	46.32	$389.19
Item:	DS-3 Repeater						

Acct: 357C with pwr & f.s.						
A BUILDING INVESTMENT						
Building Factor	0.0586	0.0554	0.0728	0.0654	0.0666	
Building Investment	**$81.88**	**$77.19**	**$103.89**	**$92.29**	**$94.11**	
B. ANNUAL CHARGE FACTORS						
Depreciation	0.0233	0.0233	0.0233	0.0233	0.0233	
Cost of Money	0.0859	0.0861	0.0863	0.0863	0.0859	
Income Tax	0.0454	0.0421	0.0376	0.0372	0.0461	
Maintenance	0.0298	0.0231	0.0372	0.0307	0.0273	
Ad Valorem Tax	0.0025	0.0066	0.0097	0.0192	0.0000	
C. ANNUAL COSTS (A * B)						
Depreciation	1.91	1.80	2.42	2.15	2.19	
Cost of Money	7.03	6.65	8.97	7.96	8.08	
Income Tax	3.72	3.25	3.91	3.43	4.34	
Maintenance	2.44	1.78	3.86	2.83	2.57	
Ad Valorem Tax	0.20	0.51	1.01	1.77	0.00	
D. JURISDICTION WEIGHTING	0.22	0.12	0.27	0.27	0.12	
D 1.Weighted Investment D*A	18.01	9.26	28.05	24.92	11.29	
E. WEIGHTED ANNUAL COSTS (C * D)						Ameritech Weighted Average
	IL	IN	MI	OH	WI	
Depreciation	0.42	0.22	0.65	0.58	0.26	**$2.13**
Cost of Money	1.55	0.80	2.42	2.15	0.97	**$7.89**
Income Tax	0.82	0.39	1.06	0.93	0.52	**$3.72**
Maintenance	0.54	0.21	1.04	0.76	0.31	**$2.86**
Ad Valorem Tax	0.04	0.06	0.27	0.48	0.00	**$0.85**
Total Annual Cost	3.37	1.68	5.44	4.90	2.06	**$17.45**

DEVELOPMENT OF AMERITECH DS-3 REPEATER COSTS

	INVESTMENT (A)	ANNUAL CHARGE FACTOR (B)	COSTS (C)
1 DS-3 REPEATER INVESTMENT	$1,232.44		
2 REPEATER BAY INVESTMENT	$7,788.52		
3 DS-3 REPEATER PANELS PER REPEATER BAY	9		
4 DS-3 REPEATERS PER PANEL	8		
5 DS-3 REPEATER BAY INV PER REPEATER ((L2/L3)/L4)	$108.17		
6 DS-3 REPEATER PANEL INVESTMENT	$101.40		
7 DS-3 REPEATER PANEL INVESTMENT PER REPEATER (L6/L14)	$12.68		
8 TOTAL DS-3 REPEATER INV (L1 + L5 + L7)	$1,353.29		
9 C.O. DIG. TEL PLT INDEX	0.99		
10 ADJUSTED TOTAL DS-3 REPEATER INV	$1,339.76		
11 COST OF MONEY		0.046009	$61.64
12 INCOME TAX		0.018448	$24.72
13 DEPRECIATION EXP		0.167066	$223.83
14 MAINTENANCE EXP		0.016905	$22.65
15 AD VALOREM TAX		0.008103	$10.86
16 GROSS RECEIPTS TAX ((L11C THRU L15C)*16B		0.010407	$3.58
17 TOTAL ANNUAL COSTS PER DS-3 REPEATER (L11 THRU L16)			$347.27
18 TOTAL MONTHLY COSTS PER DS-3 REPEATER (L17/12)			$28.94
19 FDC FACTOR			1.58
20 FDC COST PER DS-3 REPEATER (L18 * L19)			$45.72

AMERITECH
INTERCONNECTION

DUAL RISER COST

	AMERITECH
TOTAL INSTALLED INVESTMENT	$500.00
AVERAGE % OCCUPANCY BY CUSTOMER	75%
INVESTMENT ATTRIBUTED TO CUSTOMER	$375.00
ESTIMATED RECURRING COSTS:	
Depreciation	$16.91
Cost of Money	29.29
Income Tax	13.08
Maintenance	5.25
Administrative Overhead	0.00
Incremental Expense	0.00
Other Recurring Expense	0.00
Ad Valorem Tax	4.80
Gross Receipts Tax	1.12
Total Annual Cost:	$70.45
Total Demand Weighted Annual Amount (including 1.58 Loading Factor	$112.27
Total PV	$442.21
Total Non-recurring Rate Per Customer Per Floor Traversed	$442.21
Ratio Direct Cost to Direct Investment	0.1879

AMERITECH
INTERCONNECTION

DUAL RISER COST

	ILLINOIS	INDIANA	MICHIGAN	OHIO	WISCONSIN	AMERITECH
TOTAL INSTALLED INVESTMENT	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00
AVERAGE % OCCUPANCY BY CUSTOMER	75%	75%	75%	75%	75%	75%
INVESTMENT ATTRIBUTED TO CUSTOMER	$375.00	$375.00	$375.00	$375.00	$375.00	$375.00
ESTIMATED RECURRING COSTS:						
Depreciation	$16.91	$16.91	$16.91	$16.91	$16.91	$16.91
Cost of Money	$29.29	$29.29	$29.29	$29.29	$29.29	$29.29
Income Tax	$13.85	$13.85	$13.85	$13.85	$13.85	$13.08
Maintenance	$5.18	$5.18	$5.18	$5.18	$5.18	$5.25
Administrative Overhead	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Incremental Expense	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Other Recurring Expense	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Ad Valorem Tax	$6.79	$2.40	$3.94	$2.25	$0.00	$4.80
Gross Receipts Tax	$0.73	$0.81	$0.53	$3.23	$2.87	$1.12
Total Annual Cost	$72.75	$68.44	$69.70	$70.71	$68.10	$70.45
Overhead Loading Factor 1.58						
Total Annual Cost (w/overhead)	$114.95	$108.14	$110.13	$111.72	$107.60	
Total Demand Weighted Amount	$59.77	$14.06	$23.13	$6.70	$8.61	$112.27
	$112.27	$112.27	$112.27	$112.27	$112.27	$112.27
Total PV	$442.21					
Total Non-recurring Rate Per Customer Per Floor	$442.21					

12.27

Dual Riser

AMERITECH CENTRAL OFFICE INTERCONNECTION
SPACE RESERVATION CHARGE

Work Group	Total Time (hour)	Labor Rate (per hour)	Total NRC
(A)	(B)	(C)	D=B*C
Collocation Coordinator	2	$53.69	$107.38
CSPEC	8	$53.69	$429.52

RESERVATION EXPENSE	$536.90
GROSS RECEIPTS TAX	$22.87
TOTAL RESERVATION EXPENSE	$559.77
TOTAL ANNUAL RESERVATION EXPENSE	$341,461
FDC FACTOR	1.58
SPACE RESERVATION CHARGE	$884.44
DIRECT UNIT EXPENSE TO UNIT PRICE RATIO	0.63

ATTACHMENT C

Cost Factor Development

MATERIAL RELATED

- **Circuit Equipment Plug-In Inventory Factors**

This factor has been previously referred to by such terms as Spare Factor, Field Stock Factor, or simply, Stock Factor. The term "inventory", as used in this factor development process, represents material held for anticipated service requirements; i.e., inventory of spare material maintained in the "field". The Circuit Equipment Plug-In Inventory Factor is only applicable to certain plug-in type equipment chargeable to Account 2232 - Circuit Equipment. All other central office material will have no inventory loading.

The Circuit Equipment Plug-In Inventory Factor reflects the ratio of the deferrable investment of plug-in equipment at the Ameritech Distribution Center (Central Stock) plus the spare equipment investment located in the central offices to the in-service (working) plug-in investment. Average plug-in investment over a three year period is used in development of the factor.

- **Supply Expense Factors**

The term "Supply Expense" refers to those costs incurred by the Ameritech Operating Companies (AOCs) for either Ameritech Services or, in the case of Engineered, Furnished and Installed (EF&I) switching equipment purchases, an outside vendor performing material/equipment handling functions such as receiving, put away, storage, selection, packaging, staging, loading, transporting, and intermediate storage of stocked material. Also, in the case of Ameritech Services Provisioning, costs for receiving and transporting direct (non-stock) material are included.

The Supply Expense Factor represents an estimate of the relationship between provisioning expense and the value of actual goods supplied by those operations or vendors.

For material purchases through Ameritech Services:

> The Supply Expense Factor represents the ratio of Average Annual Ameritech Provisioning Expense to Average Annual Ameritech Material Charges as developed in the Ameritech Rate Development System (ARDS). These averages are based on three (3) consecutive years of data. Provisioning Expense is obtained from each AOC's General Ledger and reflects those billing items classified to Account 6512.1 and 6512.2. Ameritech Materials represents all material billed to the Operating Companies including both stock and non-stock material purchases.

For EF&I switch purchases direct from vendor:

> The Supply Expense Factor represents the ratio of Average Material-Related Charges; i.e., transportation, haul and hoist, warehousing, etc., to Average Annual Material Charges adjusted to reflect forward-looking procurement activities. The historic averages are based on vendor billing data extracted from the Plug-In Inventory Control System and Detailed Continuing Property Record (PICS/DCPR) database for each AOC.

- **Sales/Use Tax Rates**

Sales taxes are state and local taxes levied on certain material purchases. Each Ameritech Operating Company's sales/use tax liability varies based on individual state and local tax statutes and regulations governing tax exemptions for specified types of equipment purchases.

An Ameritech Operating Company's (AOC's) tax liability is determined by the assignment of an investment to a telephone plant account. Information relative to applicable AOC sales and/or use tax rates have been compiled by the Ameritech - Finance and Administration (Tax) organization.

INSTALLATION INVESTMENT RELATED

- **In-Plant Factors**

In-plant factors, sometimes referred to as installation factors, are used to translate material prices into installed component unit investments. The in-plant factor includes telco engineering and installation, sales tax, supply expenses, shipping, testing, common equipment in-place costs, etc. This factor is developed separately for hardwired and plug-in for each central office plant account.

The in-plant factor is a ratio of the total costs (material price plus all costs necessary to make the equipment operational) to the material price. The average in-plant factor is developed from data for the past three years using the INPLANT SYSTEM that accesses each regional company's Plug-In Inventory Control System and Detailed Continuing Property Record (PICS/DCPR) database. The Telephone Plant Index is used to bring material costs to current costs.

- **Investment Weighting Factors**

Investment Weighting Factors reflect the proportion of Total Installed Costs or investment that is material, contractor installation, contractor engineering, and Telco-specific labor and engineering.

Material, as defined for factor development purposes, refers to cost of equipment and supplies including any state or local sales tax and supply expense (i.e., transportation, warehousing, etc.) provided by a vendor or an AOC for a capital construction project. Contractor installation refers to costs for work performed by vendors in connection with installation activity. Contractor engineering identifies the cost for detailed engineering, drafting, appraisal and/or survey activity performed by vendors. Telco-specific installation and engineering refers to direct labor costs and overhead loadings; i.e., Benefits, Motor Vehicle, etc., for Facilities, Network Services, and Engineering employees associated with the construction activity.

Investment Weighting Factors are used within the ECONS cost model to develop Total Installed Cost for EF&I studies. They are also necessary inputs for EF&I and TIC cost studies for calculation of recoverable and non-recoverable portions of the investment being studied.

The Investment Weighting Factors are developed by aggregating for each account, by source code and expenditure type, capital expenses resident in the SDTF (Standard Detail Transaction File) database for each Ameritech Operating Company. This database has been designed to capture actual transactions charged against specific job estimates.

- **Power Factors**

A Power Factor is used within the ECONS cost development program to estimate the investment in power equipment that is required to support associated central office switching and/or circuit equipment.

The term "power equipment" is used to include power plants such as: 24 volt, 48 volt or 130 volt. Power plant equipment includes control boards, generators, rectifiers, distribution boards and batteries.

The Switching Cost Information System (SCIS) model was utilized to derive an "average" switch size per office configuration for each Operating Company by switch vendor including number of lines and trunks applicable. Similarly, forward-looking circuit equipment requirements were identified. Associated investment data for these configurations were then computed. Planning Engineers used the above switching and circuit equipment specifications to design a typical power arrangement and identify the associated power plant equipment investment levels. The Power Factor represents the ratio of power equipment investment to switching or circuit investment as applicable.

- **Floorspace Factors**

A Floorspace Factor is used within ECONS to estimate the investment in Central Office floorspace that is required to support central office switching and/or circuit equipment as well as its associated power plant.

Floorspace factors reflect an estimate of the cost of new construction specific to central office facilities; i.e., increased floor loadings, redundant mechanical support systems, redundant commercial electrical feeds, advanced fire detection systems, alarm systems, and emergency electrical back-up systems.

The Switching Cost Information System (SCIS) model was utilized, to derive an "average" switch size for each Operating Company by switch vendor including number of lines and trunks. Similarly, forward-looking circuit equipment requirements were identified. Associated investments for these configurations were then computed. Planning Engineers used the switching and circuit equipment specifications to design a typical power plant arrangement and quantify the cost of the power plant equipment. The investment of the power plant was then computed.

Costs for each 100 square feet of floorspace was based on a sampling of central offices in each of the Operating Company's service areas. The sample was chosen to reflect a cross section of large, medium and small offices in each state. The cost of construction was taken from the Means Building Construction Cost Data Guide for Telephone Exchanges and subsequently brought to a current year basis by applying the appropriate Telephone Plant Index. Based upon the switch, circuit and power

configurations noted above, the Engineers designed an optimal central office "footprint" stated in terms of minimum square footage requirements. The floorspace cost per square foot was multiplied by the specified square footage requirement to derive floorspace investment. The Floorspace Factor represents the ratio of floorspace investment to the sum of c.o. switching, circuit and power plant investment.

- **Loop Installation Factors**

Loop Installation Factors translate transport facility material prices into total installed investments.

Material price, as defined for factor development purposes, refers to the forward-looking cost of non-exempt outside plant material designated for construction of outside plant facilities plus applicable sales tax and supply expense.

The Loop Installation Factors quantify: directly assigned telco labor and engineering; vendor installation, engineering and miscellaneous charges; exempt (minor) material loadings; short and long term rental of tools and other work equipment; easement purchases for locating outside plant; etc.

Gross additions to investment for the various outside plant accounts are captured on a transaction category code basis for a three year period via the Financial System. The capital expenses are aggregated by expense type. The installation factors are calculated to reflect a ratio of the total costs (material price plus various directly assigned costs necessary to install the facility) to the material price (inclusive of sales tax and supply expense) and projected to current year through the application of Ameritech Telephone Plant Indices.

- **Support Structure Factors**

Supporting Structure Factors are most commonly used in Exchange Loop study development and in TONIC/FIC studies. The term "structure" as used in this context refers to poles and conduit with poles supporting aerial plant and conduit supporting underground cable plant.

The pole factor represents the relationship between pole investment and investment in total aerial plant (exchange cable and wire excluding building cable). The conduit factor reflects the relationship between underground conduit investment and total investment in underground plant (exchange plus toll cable).

Supporting Structure Factors are developed by calculating the following ratios:

$$\text{Pole Factor} = \frac{\$ \text{ Investment - Poles}}{\$ \text{ Investment - Aerial Cable \& Wire}}$$

$$\text{Conduit Factor} = \frac{\$ \text{ Investment - Conduit}}{\$ \text{ Investment - Underground Cable}}$$

To eliminate extreme fluctuations, average support structure factors have been developed based on gross additions to investment over a three (3) year period which is converted to a curr . year basis by applying the appropriate Ameritech Telephone Plant Index.

EXPENSE RELATED

- **Maintenance Factors**

Maintenance costs are incurred in order to keep telephone plant and equipment resources in usable condition. Included in this classification are: direct labor, material costs incurred in the upkeep of plant, and engineering associated with maintenance work.

The maintenance factor represents an estimate of the relationship between the maintenance expenses and the investment dollars of each plant account. This ratio of expenses to investment is based on data from the General Ledger (Total Year Expenses and Investments).

End of period account balances as reported in Corporate General Ledgers are input to a spreadsheet for developing average annual investments for each plant account and average annual expense in each associated maintenance account. These averages are based on three (3) consecutive years of data. Current Cost/Book Cost (CC/BC) ratios developed by Capital Recovery are used to convert each year's average investment to a dollar value consistent with expense dollars being associated with that investment. Labor inflation rates are used to convert labor-related expenses to current year dollars.

CAPITAL RELATED

- **Composite Income Tax**

Income tax expense is computed on the equity portion of the cost of capital. Income tax is a component of the capital costs caused by an investment and includes both a federal and state component. The state income tax regulations are similar to the federal regulations allowing the company to develop a composite rate for federal and state income taxes. State income tax is deductible for federal income tax purposes.

The composite income tax rate for each Ameritech Operating Company reflects deductibility of state income tax and is computed as follows:

$$\text{Composite Income Tax Rate} = \text{State Rate} + \text{Federal Rate}\ (1\text{-State Rate})$$

OTHER FACTORS

- **Ad Valorem Tax**

Ad Valorem taxes are taxes levied on the value of plant, with "value" determined by assessment. Property taxes are generally of this type.

The current methodology for the ad valorem tax factor uses a three (3) year moving average. The total tax paid is divided by the current value of the applicable plant investment to derive a ratio or factor for use in incremental cost studies.

ATTACHMENT D

ECONOMIC COSTS OF NETWORK SERVICES (ECONS)

The calculations required to develop the investment and recurring incremental costs for the product or service under study are performed by a computer program called Economic Costs Of Network Services (ECONS). At a point during its processing, ECONS accesses the Capital Cost (CAPCOST) program to perform capital costs calculations. CAPCOST is a program which determines capital costs using cost of money rates, and federal and state tax regulations. Pages 9 and 10 of this exhibit present flowcharts which provide a more detailed view of the processes employed by these programs.

Investment

The top portion of page 9 shows how the total unit investment is often calculated. The total unit investment is derived by ECONS from material and labor related inputs.

Cost studies undertaken to support the rates proposed in this case involve costs expected to be incurred during 1997.

If the material investment is circuit equipment, an inventory factor is applied to the projected material price to account for the material held for anticipated service requirements. The factor may be product specific, or it may represent an account average value.

Sales tax expenses are calculated by applying a sales tax factor to the material price and the inventory loading. The last consideration related to material investment is supply expense. Supply expense is the cost incurred by Ameritech Illinois for delivery of material from the distribution center to Company and customer locations. Supply expense is calculated in ECONS by applying a factor to the material cost and sales tax expense components derived above.

Labor related investment inputs consist of plant installation hours, engineering hours, plant labor rates, plant vehicle rates, engineering labor rates and installation factors. For many products, work times for the specific installation function are obtained from engineering evaluations and special studies. Engineering activities include design and ordering of equipment configurations and job scheduling. Hourly labor rates include the basic operational salary, plus loadings for Social Security, Relief and Pension, and motor vehicles used by the motorized plant forces who perform installation activities. ECONS computes total labor costs by multiplying the product specific work time by the appropriate labor rate, or by applying a factor to material cost. Estimates of labor rates were derived from special studies. ECONS will then capitalize the labor costs to reflect the appropriate accounting treatment. Capitalized labor costs are added to the material investment to obtain the total unit investment.

When the investment is obtained directly from other cost models such as SCIS, AFAM, CCSCIS, or FIC, the investment is often multiplied by an annual cost factor derived from ECONS rather than run separately through the ECONS model. The annual cost factor captures the capital cost and operating expenses related to the investment under study.

When applicable, a power and floor space factor is applied to the material price to account for the investment related to power equipment such as generators and the investment related to the floor space required to support central office switching and/or circuit equipment.

CAPCOST Process - Overview

At this point, ECONS passes the total unit investment to the CAPCOST program. Recurring capital costs (depreciation, cost of money, and income taxes) are a direct function of investment and are completely interrelated. Therefore, one comprehensive procedure, CAPCOST, has been mechanized to calculate all capital cost components. Page 10 of this exhibit is a simplified flowchart illustrating the operation of the CAPCOST program. In addition to investment, other capital cost related parameters are required by CAPCOST, so that the capital costs associated with an investment can be computed.

Among these parameters are:

1. Cost of Money Rate

   Development of the forward-looking cost of money rate used in TELRIC cost studies is as follows:

Components	Capital Ratios A	Current Cost B	Weighted Rate A X B = C
Debt	.300	7.6%	2.3%
Equity	.700	13.2%	9.2%
Composite	1.000	Rounded	11.5%

2. Income Tax Rate

Illinois Bell is obligated to pay both federal and state income taxes on net income. The composite tax rate is 39.75%, based upon a 7.3% effective state tax rate and a 35.0% federal tax rate. The composite percent recognizes that state taxes are deductible expenses for determining the federal tax.

3. Study Lives

In general, two life inputs are necessary for a service cost study: economic life and tax life. The economic life is the basis for recovery of reusable capitalized material and, in general, extends from the time of initial purchase to the point at which final retirement takes place. In service cost studies, the economic life represents the life by product and/or class of plant. The economic lives used in TELRIC cost studies are, for example, 7 years for central office equipment and 15 years for outside plant facilities. The second life input, tax life, is obtained from prescribed IRS class guideline lives by category of plant and is the period over which tax depreciation is allowed.

4. Vintage

In these cost studies, a vintage describes the plant added in a single year. Plant investment additions for each vintage year of a service cost study are input to CAPCOST.

5. Salvage

Gross salvage is the junk value of material being retired and is required for determination of depreciation amounts. Net salvage is the gross salvage less cost of removal.

6. Survivor Curves

Survivor curve characteristics are required by CAPCOST to determine the rate of retirement of capitalized items.

CAPCOST - Depreciation Expense

The first component of capital cost is book depreciation expense. Leading to this calculation, CAPCOST first calculates plant investments for the total demand units in each vintage year of the forecast period. Book depreciation amounts are determined by total investment, less future net salvage, and the estimated economic life characteristics. The depreciation reserve accrues the book depreciation expense amounts and at a given time represents the total of all prior accruals.

CAPCOST - Cost of Money

The second component of capital cost is the cost of money, which is based on the net investment. Before it can be computed, a deferred tax reserve due to accelerated depreciation must be considered since it impacts the net plant investment. With accelerated tax depreciation, tax deduction amounts are claimed in greater amounts during the earlier years of an asset's life than during the later years. The Accelerated Cost Recovery System (ACRS) is the method of accelerated depreciation used by CAPCOST. With ACRS, the cost of plant is recovered over a 3 year, 5 year, 7 year, or 15 year tax life depending on the type of plant. CAPCOST computes the annual ACRS tax depreciation deduction by multiplying the tax basis of the investment by a statutory percentage. The percentage to be applied depends on the plant's ACRS property class. The deferred tax reserve is computed by subtracting the annual tax depreciation deductions that would have been declared if book depreciation had been used for tax purposes, from the deductions arising from accelerated depreciation (ACRS). The deferred tax reserve and the book depreciation reserve are subtracted from the gross plant investment to produce the net plant balance. The annual cost of money is then computed by multiplying the net plant balance by the forward-looking cost of money rate.

CAPCOST - Income Tax Expense

The last component of capital costs is income tax expense. As illustrated on page 10 of this exhibit, income tax expense is computed by multiplying the income tax rate by the equity portion of the cost of money. The annual debt interest portion of the cost of money is not taxable.

Further Steps in the ECONS Process

At this point CAPCOST has computed the capital costs, year-by-year, for the cumulative sum of investments required to serve the forecast demand. Its last function is to time-value average these annual costs over the life of the asset. These capital costs are then passed back to the ECONS program.

Next, the ECONS program will calculate the recurring operating expense of *ad valorem* taxes and maintenance. *Ad valorem* taxes are directly related to the level of investment on a factor basis; i.e., *ad valorem* taxes equal the unit investment times the factor. The *ad valorem* tax factor is a composite of various tax rates including real estate taxes, the Illinois Invested Capital Tax, Illinois Franchise Fee, and the Chicago Employer's Expense Tax.

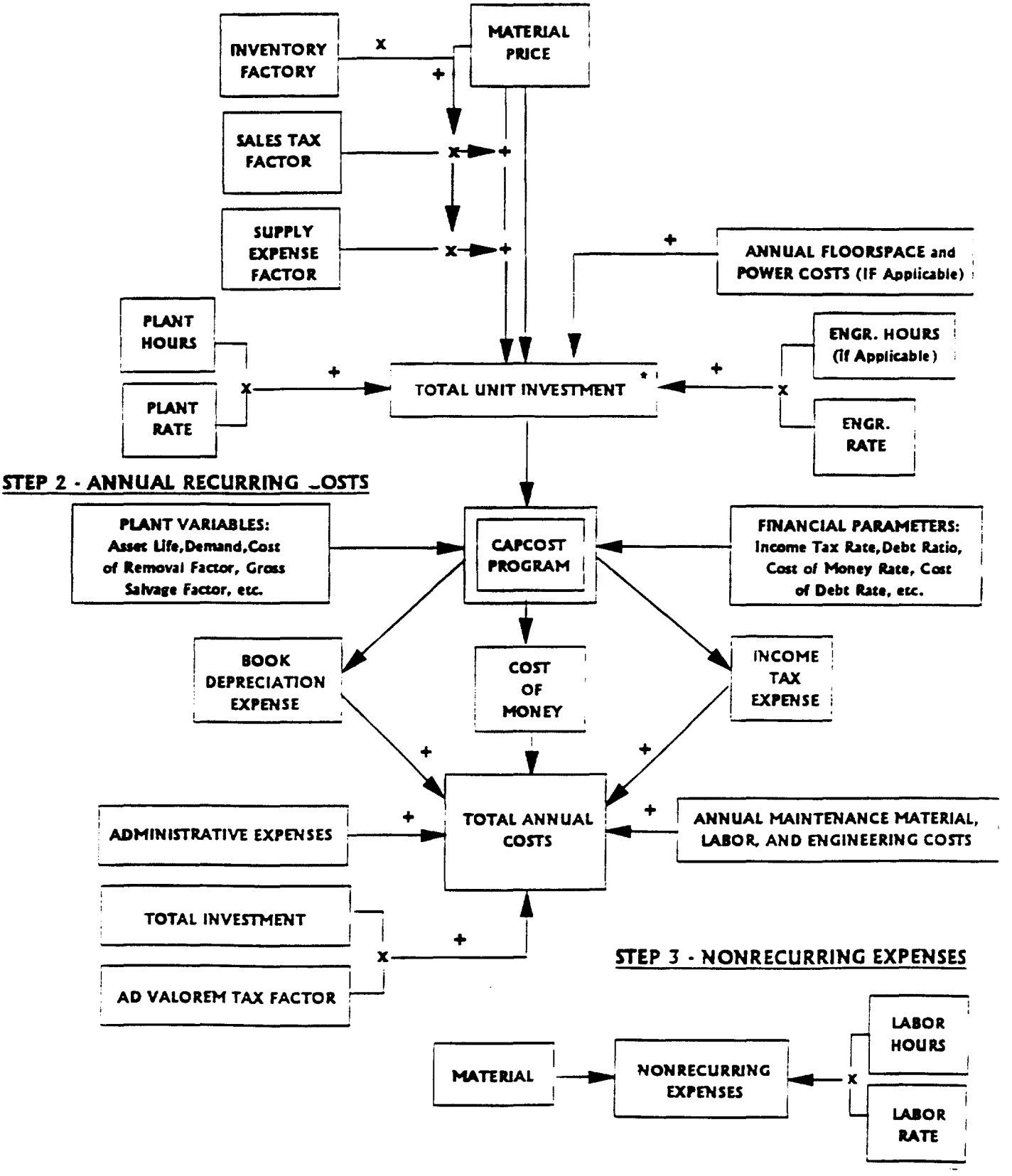
Other expenses such as marketing, advertising and sales expenses are identified for each service studied and are summarized and displayed outside of the ECONS model.

Maintenance expenses consist of labor and material costs incurred in the upkeep of plant, rearrangements, changes of plant, and miscellaneous expenses such as shop repair. Labor costs incurred for upkeep activities are derived by multiplying hourly rates by work times. Annual maintenance work times and material are provided by the maintenance engineering group on a per product or service basis. Where specific maintenance information is not available, maintenance factors are multiplied by investment to compute annual maintenance costs. This is generally the case with outside plant and central office studies. These factors

are derived by dividing average annual maintenance dollars by average annual investment on a plant account basis.

The total annual cost is the sum of all recurring cost components; i.e., book depreciation, cost of money, income tax expense, *ad valorem* taxes, administrative expenses, maintenance expense, power, and floor space costs. Where applicable, non-recurring expenses may be identified as separate cost items. This calculation is depicted in the lower right corner of page 9.

ECONS AND CAPCOST STUDY PROCESS



*Total Unit Investment may also be obtained Directly from Cost Models such as SCIS, AFAM, CCSCIS, OR FIC.

DEVELOPMENT OF CAPITAL COSTS - CAPCOST